

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween; and

forming at least a source region and a drain region in the semiconductor island,

wherein irradiation of laser light is performed after forming said semiconductor film.

35. (Amended) A method for manufacturing a semiconductor device comprising:

forming a semiconductor island on an insulating surface, the semiconductor island having a tapered shape, wherein the tapered shape has an angle within a range of 20° to 50° between a side thereof and an underlying surface;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film wherein the second gate insulating film comprises silicon oxide nitride;

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween;

forming at least a source region and a drain region in the semiconductor island;

forming an interlayer insulating film over the gate electrode wherein the interlayer insulating film comprises silicon nitride; and

forming a resin material layer over the interlayer insulating film.

36. (Amended) A method for manufacturing a semiconductor device comprising:

forming a semiconductor island on an insulating surface, the semiconductor island having a tapered shape, wherein the tapered shape has an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film by using mixed gases of TEOS and N₂O wherein the second gate insulating film comprises silicon oxide nitride; and

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween.

37. (Amended) A method for manufacturing a semiconductor device comprising:

forming a semiconductor island on an insulating surface, the semiconductor island having a tapered shape, wherein the tapered shape has an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film wherein the second gate insulating film comprises silicon oxide nitride;

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween;

forming an interlayer insulating film over the gate electrode wherein the interlayer insulating film comprises silicon nitride; and

forming a resin material layer over the interlayer insulating film.

38. (Amended) A method for manufacturing a semiconductor device comprising:

forming a semiconductor film on an insulating surface;

forming a semiconductor island having a tapered shape by patterning the semiconductor film, said tapered shape having an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film by using mixed gases of TEOS and N₂O wherein the second gate insulating film comprises silicon oxide nitride; and

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween.

wherein irradiation of laser light is performed after forming said semiconductor film.

39. (Amended) A method for manufacturing a semiconductor device comprising:

forming a semiconductor film on an insulating surface;

forming a semiconductor island having a tapered shape by patterning the semiconductor film, said tapered shape having an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film wherein the second gate insulating film comprises silicon oxide nitride;

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween;

forming an interlayer insulating film over the gate electrode wherein the interlayer insulating film comprises silicon nitride; and

forming a resin material layer over the interlayer insulating film,

wherein irradiation of laser light is performed after forming said semiconductor film.

40. (Amended) A method for manufacturing an electroluminescence device comprising:

forming a semiconductor island on an insulating surface, the semiconductor island having a tapered shape, wherein the tapered shape has an angle within a range of 20° to 50° between a side thereof and an underlying surface;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film wherein the second gate insulating film comprises silicon oxide nitride;

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween;

forming at least a source region and a drain region in the semiconductor island;

forming an interlayer insulating film over the gate electrode wherein the interlayer insulating film comprises silicon nitride; and

forming a resin material layer over the interlayer insulating film.

41. (Amended) A method for manufacturing an electroluminescence device comprising:

forming a semiconductor island on an insulating surface, the semiconductor island having a tapered shape, wherein the tapered shape has an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film by using mixed gases of TEOS and N₂O wherein the second gate insulating film comprises silicon oxide nitride; and

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween.

42. (Amended) A method for manufacturing an electroluminescence device comprising:

forming a semiconductor island on an insulating surface, the semiconductor island having a tapered shape, wherein the tapered shape has an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film wherein the second gate insulating film comprises silicon oxide nitride;

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween;

forming an interlayer insulating film over the gate electrode wherein the interlayer insulating film comprises silicon nitride; and

forming a resin material layer over the interlayer insulating film.

43. (Amended) A method for manufacturing an electroluminescence device comprising:

forming a semiconductor film on an insulating surface;

forming a semiconductor island having a tapered shape by patterning said semiconductor film, said tapered shape having an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film wherein the second gate insulating film comprises silicon oxide nitride;

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween; and

forming at least a source region and a drain region in the semiconductor island,

wherein irradiation of laser light is performed after forming said semiconductor film.

44. (Amended) A method for manufacturing an electroluminescence device comprising:

forming a semiconductor film on an insulating surface;

forming a semiconductor island having a tapered shape by patterning the semiconductor film, said tapered shape having an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film by using mixed gases of TEOS and N₂O wherein the second gate insulating film comprises silicon oxide nitride; and

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween,

wherein irradiation of laser light is performed after forming said semiconductor film.

45. (Amended) A method for manufacturing an electroluminescence device comprising:

forming a semiconductor film on an insulating surface;

forming a semiconductor island having a tapered shape by patterning the semiconductor film, said tapered shape having an angle within a range of 20° to 50° between a side thereof and an underlying surface;

performing a plasma treatment to the semiconductor island;

forming a first gate insulating film over the semiconductor island wherein the first gate insulating film comprises silicon oxide;

forming a second gate insulating film over the first gate insulating film wherein the second gate insulating film comprises silicon oxide nitride;

forming a gate electrode over the semiconductor island with the first gate insulating film and the second gate insulating film therebetween;

forming an interlayer insulating film over the gate electrode wherein the interlayer insulating film comprises silicon nitride; and

forming a resin material layer over the interlayer insulating film,

wherein irradiation of laser light is performed after forming said semiconductor film.

Please add new claims 52-61 as follows:

--52. A method according to claim 1, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

53. A method according to claim 36, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

54. A method according to claim 37, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

55. A method according to claim 38, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

56. A method according to claim 39, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

57. A method according to claim 41, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

58. A method according to claim 42 wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

59. A method according to claim 43 wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

60. A method according to claim 44, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.

61. A method according to claim 45, wherein the plasma treatment comprises that organic substances adsorbing on a surface of the semiconductor island are oxidized by oxygen plasma and the oxidized organic substances are reduced and vaporized by hydrogen plasma.--